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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,380	09/01/2005	Nao Murakami	043087	7975
38834 7590 01/29/2008 WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP 1250 CONNECTICUT AVENUE, NW SUITE 700 WASHINGTON, DC 20036			EXAMINER QI, ZHI QIANG	
			ART UNIT 2871	PAPER NUMBER
			MAIL DATE 01/29/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/522,380

Applicant(s)

MURAKAMI ET AL.

Examiner

Mike Qi

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,4-17 and 20-31 is/are rejected.
- 7) ☒ Claim(s) 2,3,18 and 19 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 1/26/05;4/4/05;9/1/05;8/8/07 ✓
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 4-17, 20-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant admitted prior art (AAPA) in view of EP 1 160 591 A1 (Sadao et al).

Regarding claims 1, 4, 17, 20, 30 and 31, **AAPA** teaches (paragraphs 0002 – 0010) that in the prior art (see JP references described in paragraph 0002, 0003) an optical film such as retardation film functions as a birefringent layer satisfies the condition: $n_x \geq n_y > n_z$ and that is conventional. Concerning claim 17 of the producing method, **AAPA** teaches that applying a polymer solution onto a base (such base should be a transparent polymer film) and removing the solvent of solution by evaporation, i.e., applying a non-liquid crystal polymer solution on the base, and evaporating and removing a solvent in the solution so as to form the birefringent layer so that adjusting the birefringent layer to satisfy the condition of $n_x \geq n_y > n_z$. Such polymer includes polyamide, polyimide, polyester, polyetherketone, polyamidamide, polyesteramide and the like, and that is conventional.

Concerning a transparent polymer film layer as the base and such transparent polymer film layer having an in-plane retardation of not more than 50nm, **Sadao** teaches that a film does not substantially have a retardation is useful as a polarizer protection film

(see paragraph 0001). Usually, a retardation film as a birefringent layer formed between the polarizer and the liquid crystal cell. So that using a film does not substantially have a retardation as a base to form a birefringent layer would be useful as a polarizer protection film. **Sadao** further teaches that the film (as the base) using resin such as polycarbonate that is a transparent polymer film (see paragraph 0005). **Sadao** further teaches that the retardation value of the film is less than 20 nm, i.e., such transparent polymer film as a base having an in-plan retardation of not more than 50 nm or having an in-plane retardation of higher than 0 and nor more than 50 nm as claimed in claims 31 and 31. In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a prima facie case of obviousness exists. (see MPEP 2144.05 I.) Such that using transparent polymer film as a base and laminated a birefringent layer to form an entire optical film having an entire birefringence so as to obtain useful protection.

Therefore, it would have been obvious to those skilled in the art at the time the invention was made to modify the optical film of AAPA with the teachings of using transparent resin as taught by Sadao, since the skilled in the art would be motivated for obtaining a useful protection such as a polarizer protection film.

Regarding claims 5-11 and 21-24, AAPA and Sadao teach the invention set forth above. Sadao further teaches the resin (transparent polymer) such as polycarbonate, polyarylate, polyethersulfone, celluloses, etc., are known (see paragraph 0004); and a transparent film is provided comprising a thermoplastic resin having a substituted or non-substituted (unsubstituted) imide group at a side chain of the resin and a thermoplastic resin having a substituted or non-substituted (unsubstituted) phenyl group and a nitrile

group (see paragraph 0018); and the resin having maleimide structure (see paragraph 0048); and forming such film by stretching as a stretched film (see paragraph 0029) that would be conventional and AAPA also teach such producing method used in prior art (see AAPA paragraph 0004). Sadao further teaches such retardation film used as a polarizer protection film so that film as an optically-compensating film that would be useful as a polarizer protection (see paragraph 0001). Therefore, such laminated birefringent layer having such small retardation would have been obvious to those skilled in the art as obtaining useful polarizer protection.

Regarding claims 12-16 and 25-29, concerning such optical film as an optical compensation film having such retardation used in a liquid crystal panel, in STN cell, TN cell, IPS cell, VA cell, OCB cell, HAN cell, or an ASAM cell, or in a self- light-emitting display, or in a organic EL display as the optical compensation would be an intended use and that would have been at least obvious in order to obtain optical compensation and polarizer protection.

Allowable Subject Matter

3. Claims 2-3 and 18-19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 2-3 and 18-19 contain allowable subject matter because the prior art of record neither anticipated nor rendered obvious that an optical film and the producing

method contains various elements and steps as claimed with specific features recited in the claims 2-3 and 18-219 as follows:

A birefringence $\Delta n(a)$ of the birefringent layer and a birefringence $\Delta n(b)$ of the transparent polymer film layer satisfies a condition represented by the following formula:
 $\Delta n(a) > \Delta n(b) \times 10$; and a birefringence (Δn) of the entire optical film is in a range of 0.0005 to 0.5.

Conclusion


4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mike Qi whose telephone number is (571) 272-2299. The examiner can normally be reached on M-T 7:30 am-6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on (571) 272-1787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Mike Qi
Primary examiner
Jan. 24, 2008